CHARGE NUMBER: Various

PROGRAM TITLE: New Process Investigation

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I. Ultrasonics

Based upon previously reported experimental results, a laboratory type, variable frequency ultrasonic generator system was selected and ordered from Fibra-Sonics, Inc., Chicago, Illinois. Delivery is expected late this month.

Special ultrasonic transducer specifications are established and one unit ordered for the development of the high density SCS type filter processing program. Several basic type transducers will be available from Fibra-Sonics, Inc., for feasibility studies, and investigations on several concepts in ultrasonics, i.e., plastic filter tube sealings; shattering of compacted MP material; carbon fallout, etc.

II. Microwave-Fused (Wrapless) Plug Development

Modification and adoptation of a variable speed tow puller is completed and tried. Microwave guard, featuring exchangeable ceramic tubings of various diameters, is mounted on the puller unit along with a special rod cooler.

Connection of the puller - microwave guard to the microwave generator system is underway. It is expected that the first trial of rapid fusing of the tow fibers may be conducted during the week of December 17.

III. Plug Space Plug Extrusion

A special extruder die, designed for the feasibility study of "plug combining by extrusion" program, was fabricated by Gatto Machinery Development Corp., Hanpauge, New York, and delivered to R&D. Adaptation, tryout and debugging of this equipment is tentatively scheduled for the first half of January. In the meanwhile, a bread-board feeding system is being attached to the extrusion line to evaluate concept and establish production specifications.

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